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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,870	11/26/2003	Marc Alan Strand	80063	8649
40850	7590	12/13/2005	EXAMINER	
ERIC D. MIDDLEMAS EASTMAN CHEMICAL COMPANY P. O. BOX 511 KINGSPORT, TN 37662-5075			BOYKIN, TERRESSA M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/722,870	STRAND ET AL.	
	Examiner	Art Unit	
	Terressa M. Boykin	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9-15-05.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/05; 7/05; 9/05</u> | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

**In view of applicants' clarification of the intended subject matter, and update searching of this intended subject matter, the following claims have been rejected:**

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 1-15, 16, 17-28, 29,30--33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20040127609 see abstract and pages 1-4.***

**US 20040127609** discloses flame retardant polyester compositions suitable for calendaring may be prepared from polyesters having crystallization half time of at least 5 minutes, a plasticizer, a phosphorus-containing flame retardant miscible with the plasticized polyester, and an additive effective to prevent sticking of the polyester to the calendar rolls. Also disclosed are processes for flame retardant films or sheets by calendaring the above compositions and the flame retardant films or sheets produced therefrom. These films and sheets have excellent appearance, flexibility, and flame retardancy, and can be used in a wide range of decorative and packaging applications. The inherent viscosity,

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abbreviated herein as "I.V.", of the polyesters of the invention generally ranges from about 0.4 to about 1.2 dL/g and, preferably, about 0.5 to about 1.0 dL/g. The term I.V. refers to inherent viscosity determinations made at 25.degree. C. using 0.25 gram of polymer per 50 mL of a solvent composed of 60 weight percent phenol and 40 weight percent tetrachloroethane. Typically, melt strength may be increased by the addition of small amounts (about 0.1 to about 2.0 mole %) of a branching agent to the polyesters either during their initial preparation or during subsequent blending or feeding procedures prior to reaching the calendering equipment. With regard to claims 2-15, 16, 17-28, 29,30—33 see pages 2-4.

With regard to claims 16 and 29 note that the reference discloses that the plasticizer used herein comprises diethylene glycol dibenzoate, abbreviated herein as "DEGDB".

In the preparation of polyester by direct esterification, i.e., from the acid form of the dicarboxylic acid component, polyesters are produced by reacting the dicarboxylic acid or a mixture of dicarboxylic acids with the diol component or a mixture of diol components. The reaction is conducted at a pressure of from about 7 kPa gauge (1 psig) to about 1379 kPa gauge (200 psig), preferably less than 689 kPa (100 psig) to produce a low molecular weight, linear or branched polyester product having an average degree of polymerization of from about 1.4 to about 10. The temperatures employed during the direct esterification reaction typically range from about 180.degree. C. to about 280.degree. C., more preferably ranging from about 220.degree. C. to about 270.degree. C. This low

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molecular weight polymer may then be polymerized by a polycondensation reaction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ both the claimed ranges of the specific weight percent of branching monomer residues as well as the specific range for the inherent viscosity. Applicants have provided no satisfactory results that would lend to an unobvious result of using the now narrowed claimed range of the branching agent. Further, one would have known to adjust the inherent viscosity according to the function of the intended composition since no unobvious result is connected thereto. Consequently, the claimed invention cannot be deemed as unobvious and accordingly is unpatentable.

### **Correspondence**

**Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

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The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( 571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

  
Examiner Terressa Boykin  
TERRESSA M. BOYKIN  
PRIMARY EXAMINER